

Exhibit 278

[REDACTED]

April 16, 2018

Re: Response to Staff Letter of March 19, 2018

[REDACTED]
Draft Registration Statement on Form S-1
Submitted November 3, 2017
[REDACTED]

Mail Stop 3233

Ms. Sonia Gupta Barros
Assistant Director
Office of Real Estate and Commodities
Division of Corporation Finance
Securities and Exchange Commission
100 F Street, N.E.
Washington, DC 20549-3628

Dear Ms. Barros:

On behalf of our client [REDACTED] manager of [REDACTED] (the "Fund"),¹ we are responding to the March 19, 2018 letter of the staff of the Securities and Exchange Commission, which contained follow-up questions to our letter of December 28, 2017 written in response to the staff's initial letter dated November 29, 2017 relating to the Fund's confidential draft Registration Statement on Form S-1 submitted on November 3, 2017. The staff's March 19, 2018 letter presented three questions that we have reproduced in bold italics below; our responses immediately follow.

Certain of the staff's questions seek factual information about ETH (or Ether, the digital asset of the Ethereum Network), XRP (the digital asset of the XRP Ledger), the Ethereum Network and the XRP Ledger,² and the prior and current activities of Ripple Labs and the Ethereum Foundation.

¹ As noted in our December 28, 2017 letter, prior to or contemporaneously with effectiveness of the Registration Statement, the Fund will be managed by [REDACTED] an affiliate of [REDACTED] these two affiliates are collectively referred to in this letter as the "Manager."

² We refer in this letter to the network on which XRP is transferred as the "XRP Ledger" (and the related software as the XRP Ledger protocol) so as to distinguish these systems from the Ripple Network products described below.

The information provided in response is based primarily upon publicly available information, but also includes some data obtained through informal discussions between the Manager and third parties independent of the Manager.

* * *

1. ***Please provide us with additional information about Ether and Ripple and their respective networks. For example, please provide us with an in-depth analysis of the method by which each respective digital asset is distributed, including how, to whom and when it is distributed. Please also include in your response an in-depth analysis of the activities and operations of the Ethereum Foundation, Ripple Labs and any of their respective affiliates with respect to:***

- ***their efforts in or oversight of developing, improving, operating and maintaining their respective network,***
- ***their promotional activities as those activities relate to the use of their respective network,***
- ***their holdings of Ether or Ripple, and***
- ***their trading of Ether or Ripple.***

Alternatively, please tell us how your investment objectives and asset holdings that relate to an investment in Ether and Ripple and other digital assets that may be considered securities are consistent with your disclosure that you are not required to register as an investment company under the Investment Company Act of 1940, as amended. Similarly, address the disclosure that your manager is not required to register as an investment adviser under the Investment Advisers Act of 1940, as amended.

A. ETH

Below we provide further information regarding the distribution of ETH and the activities of the Ethereum Foundation in relation to the Ethereum Network and ETH.

1. Distribution of ETH

Approximately 72 million ETH were created at the launch of the Ethereum Network. The Ethereum Foundation was formed as a Swiss nonprofit foundation initially to manage the sale and distribution of an initial allocation of ETH and the funds generated by the sale.³ During a 42-

³ It appears that the initial ETH sale may have been conducted through a separate legal entity that contributed funds to the Ethereum Foundation and then dissolved upon the conclusion of the sale; for simplicity "Ethereum Foundation" is used to refer to both entities. See *History of Ethereum*, ETHEREUM HOMESTEAD (2016), <http://ethdocs.org/en/latest/introduction/history-of-ethereum.html>; *Terms and Conditions of the Ethereum Genesis Sale*, ETHEREUM.ORG (Jul. 21, 2014) at 3, <https://github.com/ethereum/www/blob/master-postsale/src/extras/pdfs/TermsAndConditionsOfTheEthereumGenesisSale.pdf> ("EthSuisse will be liquidated shortly after creation of genesis block, and EthSuisse anticipates (but does not guarantee) that after it is dissolved the Ethereum Platform will continue to be developed by persons and entities who support Ethereum, including both volunteers and developers who are paid by nonprofit entities interested in supporting the Ethereum Platform").

day period starting in July 2014, approximately 60 million ETH were sold in exchange for approximately 30,000 BTC (or Bitcoin, the digital asset of the Bitcoin Network).⁴ Half of the remaining 12 million ETH were given to the initial developers as an award for their early contributions, while the other half were retained by the Ethereum Foundation to use for programs such as the developer grants and bug bounty programs described below.⁵

Other than the 72 million ETH created at the launch of the Ethereum Network, all additional ETH will be mined in a process similar to BTC mining, as described in our December 28, 2017 letter.⁶ No individual person or organization, including the Ethereum Foundation, has the ability to create more ETH other than through mining or through the consensus-based governance process described below. ETH are mined at a known rate of 18 million ETH per year, and so the proportion of newly mined ETH to initially generated ETH over time is also known.⁷

New ETH generated through mining may be held or sold by the parties who were awarded it through the Ethereum protocol. The Ethereum Foundation does not appear to have any involvement in these further sales.

2. Overview of Ethereum Protocol Governance

The activities of the Ethereum Foundation and its affiliates, the original developers of Ethereum, and other persons active in the Ethereum community in developing, improving, operating and maintaining the Ethereum Network are best understood in the context of the structure of the Ethereum developer community and the governance framework that determines if and when changes are made to the Ethereum protocol. This governance framework can be viewed as having two components, an "on-chain" governance framework, which is hard-coded into the Ethereum Network and must be followed in order for any change to take effect, and a more

⁴ See *History of Ethereum*, *supra* note 3.

⁵ See Vitalik Buterin, *Launching the Ether Sale*, ETHEREUM BLOG (Jul. 22, 2014), <https://blog.ethereum.org/2014/07/22/launching-the-ether-sale> ("There are two endowment pools, each 0.099x the initial quantity of ETH sold, that will be allocated in the first case to early contributors to the project and in the second case to a long-term endowment to our non-profit foundation"); see also *Terms and Conditions of the Ethereum Genesis Sale*, *supra* note 3, at 8 (describing the intended use of the retained ETH).

⁶ Note, however, that there are long-running discussions in the Ethereum community about switching from the mining or "proof-of-work" system for transaction validation to the less energy-intensive "proof-of-stake" transaction validation system. This change, if adopted, may also alter the expected ETH supply, but could only be adopted through the consensus-based governance process described below. See Jordan Daniell, *Ethereum Blockchain's Future with Casper and Constantinople*, ETHNEWS (Jan. 28, 2018), <https://www.ethnews.com/whats-next-for-the-ethereum-blockchain-with-constantinople>.

⁷ See *Ether: The crypto-fuel for the Ethereum network*, ETHEREUM.ORG (last accessed Apr. 9, 2018), <https://www.ethereum.org/ether>. This ETH mining rate also assumes that the Ethereum community will not allow the so-called "ice age" to take effect. The ice age is an automatic exponential increase in the difficulty of mining ETH that is programmed into the protocol to incentivize ETH miners to transition away from mining if or when the Ethereum community adopts a proof-of-stake transaction validation system that does not require mining. The ice age does not appear to be a meaningful constraint on the Ethereum community as a whole, which can always choose to delay the ice age, as it did in the Oct. 2017 "Byzantium" update, or simply eliminate it all together. See *Understanding Byzantium & What it Represents to the Ethereum Network*, DIGITAL ASSET RESEARCH (Oct. 16, 2017), <https://medium.com/digitalassetresearch/understanding-byzantium-what-it-represents-to-the-ethereum-network-9de3d00d552a>.

informal “off-chain” governance process that the community uses to facilitate consensus around prospective changes.⁸

(a) Structure of the Ethereum Developer Community

The Ethereum Network is an open-source project that is developed and maintained by its users. Since its launch in 2014, the Ethereum developer community has grown substantially. In June 2017, CNBC reported that approximately 35,000 developers and more than 500 startups were contributing to the Ethereum platform.⁹ Others have estimated that the Ethereum community has 30 times more developers than the next largest blockchain community.¹⁰ The Ethereum developer community includes full-time, part-time, and hobbyist developers spread across a number of for-profit companies, nonprofit research organizations, and individuals. Some developers coordinate their activities using the open-source project collaboration tool GitHub where the code for various Ethereum software clients and side-projects is stored, while others work independently and only present their proposed code changes once ready to be proposed for potential broader adoption. Many Ethereum developers work on multiple projects, and the Ethereum developers working on any particular project are free to institute any governance structure for the project they deem appropriate. The result is that the Ethereum developer community is an organic web of partially overlapping development projects, with pockets of temporary hierarchies that are formed and dissolved according to convenience. Some Ethereum developers are commonly known as “core developers” by virtue of their role as team leaders on the most popular versions of the Ethereum software, however no particular version the Ethereum software is the “true” Ethereum. The only “true” Ethereum is the interoperable network formed by network participants running mutually compatible Ethereum software clients.

(b) On-Chain Governance

On-chain governance of the Ethereum protocol is driven entirely by network participants. Changes are adopted by participants when they choose to run, or not to run, an updated version of the Ethereum software. Depending on the nature of the software update, these changes are known as “soft forks” or “hard forks.” Soft forks involve software changes that are backwards-compatible with a network running the un-updated or “legacy” software, whereas hard forks involve changes that are incompatible with a network that continues to run the legacy software. If a substantial minority of the user population chooses not to adopt a hard fork, the result is a chain split, *i.e.* the creation of two separate and independent networks with distinct digital assets.¹¹ Soft forks can also result in chain splits under certain circumstances, although this is significantly less likely.¹²

⁸ See generally Vitalik Buterin, *Notes on Blockchain Governance*, VITALIK.CA (Dec. 17, 2017), <http://vitalik.ca/general/2017/12/17/voting.html> (arguing the benefits of the informal governance systems used by Bitcoin, Ethereum, and similar digital assets over more formal voting systems).

⁹ See Michelle Castillo, *Despite \$319 to 10 cents flash crash, ethereum still has massive potential, says digital currency expert*, CNBC.COM (Jun. 23, 2017), <https://www.cnbc.com/2017/06/23/ethereum-has-massive-potential-blockchain-expert-william-mougayar.html>.

¹⁰ See Andrew Keys: *Ethereum Has 30 Times More Devs than the Next Blockchain Community*, CONSENSYS MEDIA (Jan. 8, 2018), <https://media.consensys.net/andrew-keys-ethereum-has-30-times-more-devs-than-the-next-blockchain-community-27980a5ddc09>.

¹¹ One of the most dramatic examples of a chain split happened on the Ethereum blockchain in July 2016. After approximately \$50 million worth of ETH was stolen from “The DAO,” an autonomous organization intended to directed venture capital funding using the Ethereum network, the Ethereum community divided along

The Ethereum Network does not have a binding, on-chain voting process by which users can pre-commit to adopting a particular software change. Rather, the process by which users decide whether or not to adopt a particular software change is conducted through the informal, though at times highly public and contentious, off-chain governance process described below.

(c) Off-Chain Governance

A key tool used by the Ethereum development community to coordinate their efforts is the crowdsourcing tool known as the Ethereum Improvement Proposal ("EIP") process.¹³ The EIP process was set forth by a group of Ethereum core developers as a way to gather insights from the Ethereum community about potential improvements to the software clients they work on. If a member of the Ethereum community has an idea for an improvement to the Ethereum Network, that person may submit an EIP to the Ethereum EIP GitHub repository. EIPs have a standard format that includes the information necessary for the proposed change to be implemented. EIP editors, a self-appointed group of core developers, perform a quality-control function by working with the EIP author to ensure that the EIP is sound and complete. Once the EIP is accepted by the EIP editors, it is assigned an identifier and added to the list of open EIPs. The EIP process is nonbinding, and there is no rule or formal process requiring EIPs to be considered, voted on, implemented or incorporated into Ethereum software clients, but open EIPs serve as an expression of the intentions and desires of the developers who authored them, and also serve as focal points for discussion and debate in the community. At the same time, there is nothing to prevent other groups of Ethereum developers from creating new or competing forums or processes for gathering the community's ideas about the direction of Ethereum development.

Many proposed changes to the Ethereum protocol represent clear improvements to the network's functionality that are in the best interests of all network participants. These improvements are typically uncontested, and when implemented easily achieve unanimous or near-unanimous adoption.¹⁴ Other proposed changes are hotly debated. These debates typically take place informally across a wide variety of media platforms (Reddit, Twitter, other online forums and

ideological lines on the issue of whether to modify the Ethereum blockchain to reverse the illicit transactions. Ultimately, the unresolved issue led to a chain-split. The modified blockchain, which returned the stolen funds, continued to be known as Ethereum, while the unmodified blockchain and its corresponding digital asset became known as Ethereum Classic or "ETC." See Alyssa Hertig, *Ethereum's Two Ethers Explained*, COINDESK (Jul. 28, 2016), <https://www.coindesk.com/ethereum-classic-explained-blockchain>; SEC, *Report of Investigation Pursuant to Section 21(a) of the Securities Exchange Act of 1934: The DAO*, Exchange Act Rel. No. 81207 (Jul. 25, 2017).

¹² For a detailed explanation of hard forks, soft forks and chain splits, see John Light, *The differences between a hard fork, soft fork, and a chain split, and what they mean for the future of bitcoin*, MEDIUM.COM (Sept. 25, 2017), <https://medium.com/@lightcoin/the-differences-between-a-hard-fork-a-soft-fork-and-a-chain-split-and-what-they-mean-for-the-769273f358c9>.

¹³ See Martin Becze and Hudson James, *eip-1.md: EIP Purpose and Guidelines*, ETHEREUM/EIPS (last accessed Apr. 9, 2018), <https://github.com/ethereum/EIPS/blob/master/EIPS/eip-1.md>.

¹⁴ For example, in October 2017, the "Byzantium" hard fork implemented an upgrade that, amongst other things, allowed the network to handle faulty contract code more easily and incorporated features allowing for more private transactions. These upgrades were integrated into the major Ethereum software clients and adopted by network participants running Ethereum software without major incident. See *Byzantium HF Announcement*, ETHEREUM BLOG (Oct. 12, 2017), <https://blog.ethereum.org/2017/10/12/byzantium-hf-announcement/>; Jeremy Nation, *Ethereum's Byzantium Update Widely Successful*, ETHNEWS (Oct. 16, 2017), <https://www.ethnews.com/ethereums-byzantium-update-widely-successful>.

chatrooms and in-person developer conferences, among other forums), and are often widely publicized in digital asset-focused news media.

Once a contested update reaches a point where a significant portion of the community of users running Ethereum software clients (including Ethereum users, miners and developers) is interested in adopting the change, proponents will typically propose a date upon which the revised software should be activated. In the period leading up to this date, users often publicly signal their intention to adopt or not adopt the change, which facilitates the coordination of user behavior across the network. In some cases, systems have been designed to informally poll network participants regarding whether they intend to adopt the proposed change. One such mechanism, CarbonVote, which was created by a pair of Ethereum developers known as Daniel Lv and Ashu, tracks user intentions by the amount of ETH held.¹⁵

3. Activities and Operations of the Ethereum Foundation

(a) Oversight of Development, Improvement, Operation and Maintenance of the Ethereum Network by the Ethereum Foundation

The Ethereum Foundation describes itself as follows:

The Ethereum Foundation's mission is to promote and support Ethereum platform and base layer research, development and education to bring decentralized protocols and tools to the world that empower developers to produce next generation decentralized applications (dapps), and together build a more globally accessible, more free and more trustworthy Internet.¹⁶

The Ethereum Foundation is a Swiss nonprofit organization funded through funds raised in the initial ETH sale discussed above, the initial allocation of ETH it retained, and additional donations from those that support its development work. Donations are made to a public ETH smart contract address, which as of April 2018 had received approximately 1,075 donations for a total of approximately 3,250 ETH.¹⁷

The Manager understands that the Ethereum Foundation pursues its mission through the following avenues:

- **Research and Development.** The Ethereum Foundation has relationships with a number of well-known Ethereum developers, including, most notably, the original inventor of the Ethereum Network and a member of the Ethereum Foundation's council, Vitalik Buterin. While the Manager is not aware of the exact nature of these relationships, it understands that the Ethereum Foundation provides funding to these developers to allow them to devote a significant amount of their time to research and development. The Ethereum Foundation's research agenda is available online,¹⁸ and includes theoretical

¹⁵ CarbonVote (last accessed Apr. 9, 2018), <http://carbonvote.com/>.

¹⁶ *About the Ethereum Foundation*, ETHEREUM.ORG (last accessed Apr. 11, 2018), <https://www.ethereum.org/foundation>.

¹⁷ *See Contract Overview: Foundation Tip Jar*, ETHERSCAN.IO (last accessed Apr. 9, 2018), <https://etherscan.io/address/0xfb6916095ca1df60bb79ce92ce3ea74c37c5d359>.

¹⁸ *See Hello potential research collaborator!*, NOTES.ETHEREUM.ORG (last accessed Apr. 9, 2018), <http://notes.ethereum.org/srkxpeG0ff>.

research into digital assets in general, as well as applied research into improvements to the Ethereum Network. The Ethereum Foundation also works with outside researchers who are working on these topics.¹⁹

- **Developer Support.** The Ethereum Foundation supports the activities of the Ethereum Developer community by maintaining a blog with developer news, moderating certain communication channels, such as the Ethereum subreddit, and hosting regular developer conferences where the community can gather to share news and ideas.
- **Development Grants and Bug Bounties.** The Ethereum Foundation from time to time offers grants to developers working on promising projects to improve the Ethereum Network, or to developers working on particular issues that are viewed as high-priority by the community.²⁰ The Ethereum Foundation also maintains a “bug bounty” program, which provides grants of ETH to anyone who identifies critical errors or vulnerabilities in the Ethereum software.²¹

(b) Promotional Activities

The Ethereum project and initial ETH sale were first announced by Mr. Buterin on the Bitcointalk.org forum, as well as on the Ethereum blog.²² The announcements focused on the novel uses of the Ethereum Network, and on the quality and experience of the initial development team. The development team later hosted a question-and-answer session on reddit.com.²³ Although further research has indicated to the Manager that some members of the developer team appear to have initially informally noted that ETH could have speculative value,²⁴ as noted in our December 28, 2017 letter, prior to any sale, the Ethereum Foundation clarified and corrected this impression through its formal written materials in which it specifically

¹⁹ *Id.*

²⁰ See Wendell Davis, *DEVgrants Update and New Funding*, ETHEREUM BLOG (Jan. 8, 2016), <https://blog.ethereum.org/2016/01/08/d%CE%BEvgrants-update-new-funding/>; Vitalik Buterin, *Ethereum scalability research and development subsidy programs*, ETHEREUM BLOG (Jan. 2, 2018), <https://blog.ethereum.org/2018/01/02/ethereum-scalability-research-development-subsidy-programs/>; *Announcing Beneficiaries of the Ethereum Foundation Grants*, ETHEREUM BLOG (Mar. 7, 2108), <https://blog.ethereum.org/2018/03/07/announcing-beneficiaries-ethereum-foundation-grants/>.

²¹ See ETHEREUM BOUNTY PROGRAM (last accessed Apr. 9, 2018), <https://bounty.ethereum.org/>.

²² See Vitalik Buterin, *[ANN] Ethereum: Welcome to the Beginning*, BITCOINTALK.ORG (Jan. 23, 2014), <https://bitcointalk.org/index.php?topic=428589.0> and Vitalik Buterin, *Launching the Ether Sale*, ETHEREUM BLOG (Jul. 22, 2014), <https://blog.ethereum.org/2014/07/22/launching-the-ether-sale/>

²³ See *Hi, we are the Ethereum Project Team. Ask us anything!*, REDDIT.COM/R/IAMA (Jul. 23, 2014), https://www.reddit.com/r/IAMA/comments/2bjmgb/hi_we_are_the_ethereum_project_team_ask_us/

²⁴ See, e.g., Joseph Lubin, *What is Ethereum? Project, Platform, Fuel, Stack.*, ETHEREUM BLOG (Mar. 14, 2014), <https://blog.ethereum.org/2014/05/14/what-is-ethereum-project-platform-fuel-stack/> (“People and businesses are interested in purchasing ETH to power their own business applications, to make use of business applications offered by other service providers, to trade on forthcoming exchanges, or to speculatively hold for future sale to people and businesses.”) and *Why do the founders get 25%*, REDDIT.COM/R/ETHEREUM (Jan. 14, 2014), https://www.reddit.com/r/ethereum/comments/1v7wz0/why_do_the_founders_get_25/cepuv1w/ (“[Question:] What benefits do you have of personally owning pre-mined coins? [Vitalik Buterin’s answer:] What benefits do we have? We get profit if Ethereum succeeds; this is obvious. What benefit do you have? The assurance that the five originators of the project are heavily incentivized to do everything in their power to make as high quality a product as possible and not abandon it.”).

disclaimed ETH as an investment and suggested that purchasers be those who expected to use ETH for development purposes.²⁵

The Ethereum Foundation continues to promote the use and development of the Ethereum Network for decentralized applications, autonomous organizations and smart contracts, including by providing free tutorials on designing Ethereum-based smart contracts, digital currencies, crowdsales, decentralized applications, and democratic autonomous organizations.²⁶

(c) Holdings of ETH

After diligent investigation, the Manager has been unable to discover reliable information regarding the extent of the Ethereum Foundation's current holdings of ETH. In May 2017, a Reddit post attributed to Mr. Buterin indicated that, at the time, the Ethereum Foundation held approximately 800,000 ETH.²⁷

(d) Trading of ETH

After diligent investigation, the Manager has been unable to discover reliable information regarding the extent of the Ethereum Foundation's trading of ETH. In May 2017, a Reddit post attributed to Mr. Buterin indicated that the Ethereum Foundation had recently sold sufficient ETH "ensuring we have the funds to last 4 years even if ETH drops to zero tomorrow."²⁸ The Ethereum Foundation's apparent 800,000 ETH holdings in May 2017, noted above, contrasts

²⁵ See *Launching the Ether Sale*, *supra* note 5 ("[ETH] is a product, NOT a security or investment offering. Ether is simply a token useful for paying transaction fees or building or purchasing decentralized application services on the Ethereum platform; it does not give you voting rights over anything, and we make no guarantees of its future value"); *Terms and Conditions of the Ethereum Genesis Sale*, *supra* note 3, at 4 ("Parties may be interested in purchasing ETH (the cryptofuel) in the Genesis sale to build and power business applications, to pay for coming distributed application services on the Ethereum Platform, to pay for other tokens that may be created on the Ethereum Platform for various applications, or to support the development of the Ethereum Platform. Individuals, businesses, and other organizations should carefully weigh the risks, costs, and benefits of acquiring the cryptofuel early in the Genesis Sale versus waiting to purchase ETH on open, third-party exchanges once the system is operational and when they or their businesses actually require the cryptofuel to operate"); See also *id.* (warning that "[p]urchases of ETH, the Ethereum Platform's cryptofuel, should be undertaken only by individuals, entities, or companies that have significant experience with, and understanding of, the usage and intricacies of cryptographic tokens, like bitcoin (BTC), and blockchain-based software systems"). In any event, as noted in our December 28, 2017 letter, even if one were to take the view that the initial sale of ETH involved an investment contract, the facts and circumstances surrounding ETH today necessarily lead to the conclusion that ETH is not currently a security. Indeed, the Commission's chairman was recently quoted acknowledging that the use of a token "evolves over time" and as a result, "[j]ust because it's a security today doesn't mean it'll be a security tomorrow, and vice-versa." See Nikhilesh De and Mahishan Gnanaseharan, *SEC Chief Touts Benefits of Crypto Regulation*, COINDESK.COM (Apr. 5, 2018), <https://www.coindesk.com/sec-chief-not-icos-bad/>.

²⁶ See, e.g., *How to build a democracy on the blockchain*, ETHEREUM.ORG (last accessed Apr. 9, 2018), <https://www.ethereum.org/dao>.

²⁷ Vitalik Buterin, *Has the Ethereum foundation released any financial information?*, REDDIT.COM/R/ETHEREUM (May 14, 2017), https://www.reddit.com/r/ethereum/comments/6b39sc/has_the_ethereum_foundation_released_any/dhk0eil/.

²⁸ *Id.*

with its self-reported holdings of 2.25 million ETH in January 2016,²⁹ and the 6 million ETH retained after the initial sale, indicating that it has generally sold down its ETH holdings over time.

B. XRP

Below we provide further information regarding the distribution of XRP and the activities of Ripple Labs in relation to the XRP Ledger, related Ripple Labs products, and XRP.

1. Distribution of XRP

Unlike BTC and ETH, XRP is not generated through a mining process. Instead, the XRP Ledger protocol was coded so that the entire supply of XRP—100 billion XRP—were generated at once in 2012. No further XRP can be created by Ripple Labs or any other party under the XRP Ledger protocol.³⁰ Out of these 100 billion XRP, the network's inventors received 20 billion and Ripple Labs was gifted the remainder.

Ripple Labs initially distributed XRP in several ways. Ripple Labs gave away XRP for free to over 25,000 beta users, gave rewards to people who found security bugs, and provided rebates to high-volume merchants.³¹ Ripple Labs also apparently sold XRP directly to purchasers, although reliable details regarding the specifics of Ripple Labs' initial sales of XRP are not publicly available. The Manager notes that the Financial Crimes Enforcement Network of the U.S. Department of the Treasury ("FinCEN") assessed a civil monetary fine against Ripple Labs for alleged violations of the Bank Secrecy Act.³² In that context, FinCEN noted that Ripple Labs sold \$1.3 million of XRP during April 2013, although the FinCEN order references additional sales in March 2013 that are not quantified.³³ By June 2015, Ripple Labs had distributed nearly 12.5 billion XRP.³⁴ Ripple Labs has sold XRP at a discount to market makers and financial institutions to incentivize them to use its products, to provide liquidity to the market, and to partially fund its business. It continues to distribute XRP to developers as a reward for finding bugs in the protocol.³⁵

Ripple Labs' current holdings and ongoing XRP trading activities are discussed under B.2(d) and B.2(e) below.

²⁹ Vitalik Buterin, *Ethereum Foundation Internal Update*, ETHEREUM BLOG (Jan. 7, 2016), <https://blog.ethereum.org/2016/01/07/2394/>.

³⁰ Because a small amount of XRP is destroyed with every transaction on the XRP Ledger, the current total amount of XRP is slightly under 100 billion: 99,992,368,872. *XRP Charts*, RIPLE.COM (last accessed Apr. 5, 2018), <https://xrcharts.ripple.com/#/>.

³¹ Danny Bradbury, *Ripple turns on giveaway faucet*, COINDESK.COM (Oct. 18, 2013), <https://www.coindesk.com/ripple-turns-on-giveaway-faucet/>.

³² *FinCEN Fines Ripple Labs Inc. in First Civil Enforcement Action Against A Virtual Currency Exchanger*, FINCEN.GOV (May 5, 2015), <https://www.fincen.gov/news/news-releases/fincen-fines-ripple-labs-inc-first-civil-enforcement-action-against-virtual>.

³³ *Attachment A: Statement of Facts and Violations*, FINCEN.GOV (last accessed Apr. 9, 2018), https://www.fincen.gov/sites/default/files/shared/Ripple_Facts.pdf.

³⁴ *XRP Distribution*, RIPLELABS.COM (as of Jun. 30, 2015), <https://web.archive.org/web/20150806120942/https://www.ripplelabs.com/xrp-distribution>.

³⁵ *Bug Bounty*, RIPLE.COM (last accessed Apr. 9, 2018), <https://ripple.com/bug-bounty/>.

2. Oversight of Development, Improvement, Operation and Maintenance of the XRP Ledger by Ripple Labs

(a) XRP Ledger and Ripple Labs

XRP is a digital asset that is separate from the products and services provided by Ripple Labs. Although the early developers of the XRP Ledger (and creators of XRP) later founded Ripple Labs, it is not owned by, nor does XRP represent an interest in, Ripple Labs. Instead, like BTC, XRP is a digital asset that is used on an open-source framework.³⁶ The XRP Ledger protocol relies upon a consensus process for participants in a peer-to-peer network to agree upon a single ledger that shows account balances (for XRP and all other currencies) for all participants. The XRP Ledger protocol "provides a worldwide, shared ledger, which gives applications authoritative information about the state of its contents. This state information includes: settings for each account; balances between accounts (trust lines); offers in the distributed exchange; network settings, such as transaction costs and reserve amounts; and a time stamp."³⁷

As described below, Ripple Labs has developed a number of payment processing and value transfer products for financial institutions. It has found XRP to be a useful component of one of these products, xRapid, due to its unique features as a digital asset. Transactions on the XRP Ledger settle, on average, in four seconds (compared to an hour for BTC), and the network is scalable to 1,500 transactions per second (compared to a maximum of seven transactions per second for BTC), with XRP acting as a bridge for cross-border transactions in different currencies.³⁸ The XRP Ledger protocol also stands out for its system of transaction validation, using consensus, which differs from "proof-of-work" systems that require mining:

The peer-to-peer XRP Ledger network consists of many distributed servers, called nodes, that accept and process transactions. Client applications sign and send transactions to nodes, which relay these candidate transactions throughout the network for processing. Examples of client applications include mobile and web wallets, gateways to financial institutions, and electronic trading platforms. . . .

The nodes on the network share information about candidate transactions. Through the consensus process, validating nodes agree on a specific subset of the candidate transactions to be considered for the next ledger. Consensus is an iterative process in which nodes relay proposals, or sets of candidate transactions. Nodes communicate and update proposals until a supermajority of peers agree on the same set of candidate transactions.

During consensus, each node evaluates proposals from a specific set of peers, called chosen validators[, sometimes referred to as a "Unique Node List"]. Chosen validators represent a subset of the network which, when taken collectively, is

³⁶ *Interview with Chris Larsen, CEO of Ripple Labs*, MONEY & TECH CHANNEL (Aug. 8, 2014), <https://www.youtube.com/watch?v=3GhTK28iVAk>. Larsen at Ripple Labs has described the protocol as three components: (1) a disruptive payments protocol, (2) a map-based currency, and (3) distributed currency exchange.

³⁷ Dave Cohen, David Schwartz, & Arthur Britto, *The XRP Ledger Consensus Process*, RIPLE.COM (last accessed Apr. 7, 2018), <https://ripple.com/build/xrp-ledger-consensus-process/>.

³⁸ Shanna Leonard, *10 Things You Need to Know About XRP*, RIPLE.COM (Oct. 6, 2017), <https://ripple.com/insights/10-things-need-know-xrp/>.

"trusted" not to collude in an attempt to defraud the node evaluating the proposals. This definition of "trust" does not require that each individual chosen validator is trusted. Rather, validators are chosen based on the expectation they will not collude in a coordinated effort to falsify data relayed to the network.³⁹

In addition to the increased transaction throughput, the XRP Ledger protocol's validation system also requires significantly less electricity than a proof-of-work system.

Anyone can become a validator by downloading and running the appropriate software. While each network participant chooses its own Unique Node List, a recommended list of validators is provided by Ripple Labs based on its observation of the history and reliability of validators operated by Ripple Labs and by third parties. Network participants are free to modify this list by adding or removing validators as they see fit. To date, most of the validators on the recommended Unique Node List are operated by or affiliated with Ripple Labs, although this is not required by the network. Ripple Labs has acknowledged that a broader network of unaffiliated validators is preferable for a secure distributed network,⁴⁰ and has committed to gradually replacing the recommended Unique Node List with validators not affiliated with Ripple Labs.⁴¹ At the same time, Ripple Labs representatives have stated that "the [XRP Ledger] software is all open, anyone can run a server, anyone can run a validator, and they do . . . if Ripple were to disappear, nothing would prevent them from continuing to operate the system exactly the way it operates today."⁴² A number of well-known organizations that are not affiliated with Ripple Labs, such as MIT and Microsoft, are now operating as validators.⁴³

While the Manager believes that many of the developers that work on improving the functionality of the XRP Ledger protocol are employees of Ripple Labs, the XRP Ledger protocol is similar to other digital asset networks in that it requires a supermajority of network participants to run software incorporating a change for any change to the network to take effect. The XRP Ledger has a more formal governance process than the Ethereum Network. Users running nodes are able to register their support for a particular change by signaling their intention to upgrade directly on the XRP Ledger. No change takes effect unless there has been a consistent 80% approval rate for two weeks.⁴⁴

³⁹ *The XRP Ledger Consensus Process*, *supra* note 37.

⁴⁰ See Stefan Thomas, *How We Are Further Decentralizing the XRP Ledger to Bolster Robustness for Enterprise Use*, RIPLE.COM (May 11, 2017), <https://ripple.com/insights/how-we-are-further-decentralizing-the-ripple-consensus-ledger-rcl-to-bolster-robustness-for-enterprise-use/>.

⁴¹ See *id.*

⁴² *Ripple and XRP - Part 6: Is XRP Decentralized?*, YOUTUBE.COM (Mar. 9, 2018), https://www.youtube.com/watch?time_continue=20&v=Y7fDEO15MGI.

⁴³ See Sarah Marquer, *XRP Ledger Decentralizes Further With Expansion to 55 Validator Nodes*, RIPLE.COM (Jul. 17, 2017) <https://ripple.com/insights/xrp-ledger-decentralizes-expansion-55-validator-nodes/>; David Patterson, *MIT Running a Ripple Validator*, RIPLE.COM (Apr. 12, 2016), <https://ripple.com/insights/mitvalidator/>; Alex Liu, *Microsoft's Marley Gray: Ripple and ILP Will Be the Fabric of Multi-Chain Future*, RIPLE.COM (Dec. 14, 2015), <https://ripple.com/insights/microsofts-marley-gray-ripple-and-ilp-will-be-the-fabric-of-multi-chain-future/>.

⁴⁴ See *Amendments*, RIPLE.COM (last accessed Apr. 1, 2018), <https://ripple.com/build/amendments/> (describing the method of introducing amendments, or new features, to the XRP protocol through a consensus process generally requiring 80% support from validators for two weeks); *Fee Voting*, RIPLE.COM (last accessed Apr. 1, 2018), <https://ripple.com/build/fee-voting> (describing mechanism for validators to vote on the transaction).

(b) Ripple Labs Products and Services

Ripple Labs' activities are broader than XRP and, in fact, many of its products and services, including its most widely adopted product, xCurrent, promote payment mechanisms that do not use XRP. Aside from its XRP-related activities, Ripple Labs functions as a traditional software company, selling and licensing software as well as providing associated professional services to enable its customers to participate in RippleNet, the network formed by participants using various payment technology products offered by Ripple Labs. The XRP Ledger protocol is open-source and distinct from the proprietary software products Ripple Labs offers to financial institutions to enable RippleNet. Ripple Labs describes RippleNet as "a single, global network of banks that send and receive payments via Ripple's distributed financial technology—providing real-time messaging, clearing and settlement of transactions."⁴⁵ RippleNet includes three products, xCurrent, xRapid, and xVia, that use blockchain technology for payment processing purposes.⁴⁶

xCurrent is designed to be used to settle payments between banks and is described by Ripple Labs as:

Ripple's enterprise software solution that enables banks to instantly settle cross-border payments with end-to-end tracking. Using xCurrent, banks message each other in real-time to confirm payment details prior to initiating the transaction and to confirm delivery once it settles. It includes a Rulebook developed in partnership with the RippleNet Advisory Board that ensures operational consistency and legal clarity for every transaction.⁴⁷

xCurrent facilitates blockchain-based financial-transaction messaging, FX conversion, and currency transfer between banks.⁴⁸ xCurrent does not involve the use of XRP, and uses a different ledger technology, called Interledger.⁴⁹

xRapid is used to provide liquidity and is described by Ripple Labs as follows:

xRapid is for payment providers and other financial institutions who want to minimize liquidity costs while improving their customer experience. Because payments into emerging markets often require pre-funded local currency accounts around the world, liquidity costs are high. xRapid dramatically lowers the capital requirements for liquidity. . . . xRapid uniquely uses a digital asset, XRP, to offer on-demand liquidity, which dramatically lowers costs while enabling real-time payments in emerging markets. Built for enterprise use, XRP offers banks and payment providers

costs (what portion of an XRP is burned). This voting right attaches to participation on the network as a transaction validator, not to ownership of XRP.

⁴⁵ *Solution Overview*, RIPLE.COM (last accessed Apr. 5, 2018), https://ripple.com/files/ripple_solutions_guide.pdf.

⁴⁶ *Solutions*, RIPLE.COM (last accessed Apr. 5, 2018), <https://ripple.com/solutions/>.

⁴⁷ *Process Payments*, RIPLE.COM (last accessed Apr. 5, 2018), <https://ripple.com/solutions/process-payments/>.

⁴⁸ *Product Overview: A technical overview of xCurrent*, RIPLE.COM (Oct. 2017), https://ripple.com/files/ripple_product_overview.pdf.

⁴⁹ Rachel O'Leary, *How XRP Fits Into Ripple's Payments Products Explained*, COINDESK.COM (Mar. 5, 2018), <https://www.coindesk.com/xrp-fits-ripples-payments-products-explained/>.

a highly efficient, scalable, reliable liquidity option to service cross-border payments.⁵⁰

In other words, instead of holding and managing several local currencies, tying up capital in local currencies that may not be needed, xRapid allows financial firms to convert funds to XRP at the time of transfer, which can then be almost instantaneously moved to the local jurisdiction and exchanged for local currency. xRapid is particularly useful for smaller payments, where fees and slow speed can dramatically impact the end-user experience. A number of cross-border money transmission firms, such as MoneyGram and Western Union, have announced testing the use of xRapid and XRP for this purpose.⁵¹

Finally, xVia is described by Ripple Labs as follows:

xVia is for corporates, payment providers and banks who want to send payments across various networks using a standard interface. xVia's simple [application programming interface] requires no software installation and enables users to seamlessly send payments globally with transparency into the payment status and with rich information, like invoices, attached.⁵²

xVia appears to be a software tool to facilitate easy access to xCurrent and xRapid, without necessarily using XRP.⁵³

Of the three Ripple Labs products, only xRapid requires XRP as part of its core functionality. As a result, many of Ripple Labs' activities do not involve the oversight, development, improvement, operation or maintenance of the XRP Ledger or usage of XRP.

(c) Promotional Activities

Through its website and the appearance of its personnel in videos, conferences and interviews, Ripple Labs appears to promote use of the XRP Ledger, and Ripple Labs' related corporate services, based on its belief that the technology facilitates faster, less expensive, and more reliable cross-border payments.⁵⁴

(d) Holdings of XRP

Ripple Labs currently owns approximately 61 billion XRP, approximately 7 billion of which are currently available to Ripple Labs and the remainder of which are not currently available, being

⁵⁰ *Source Liquidity*, RIPLE.COM (last accessed Apr. 5, 2018), <https://ripple.com/solutions/source-liquidity/>.

⁵¹ *Press Release: Ripple and MoneyGram Partner to Modernize Payments*, MONEYGRAM.COM (Jan. 11, 2018), <http://ir.moneygram.com/releasedetail.cfm?releaseid=1054088>; Felice Maranz, *Western Union Says It's Testing Transactions With Ripple*, BLOOMBERG.COM (Feb. 13, 2018), <https://www.bloomberg.com/news/articles/2018-02-13/western-union-says-it-s-testing-transactions-with-ripple>.

⁵² *Send Payments*, RIPLE.COM (last accessed Apr. 5, 2018), <https://ripple.com/solutions/send-payments/>.

⁵³ Rachel O'Leary, *How XRP Fits Into Ripple's Payments Products Explained*, COINDESK.COM (Mar. 4, 2018), <https://www.coindesk.com/xrp-fits-ripples-payments-products-explained/>.

⁵⁴ See, e.g., *XRP The Digital Asset for Payments*, RIPLE.COM (last accessed Apr. 9, 2018), <https://ripple.com/xrp/>; *Insights*, RIPLE.COM (last accessed Apr. 9, 2018), <https://ripple.com/insights/>; *Press Center*, RIPLE.COM (last accessed Apr. 9, 2018), <https://ripple.com/press-center/>; *Ripple Channel*, YOUTUBE.COM (last accessed Apr. 9, 2018), <https://www.youtube.com/user/ripplevideo1>.

maintained in a cryptographically-secured escrow account, subject to the arrangement described under B.2(e) below.⁵⁵

(e) Trading of XRP

Although Ripple Labs holds approximately 61 billion XRP, approximately 54 billion XRP—over 90% of its holdings—are not immediately available to it, pursuant to a voluntary arrangement Ripple Labs implemented to limit the amount of XRP available to it for sale. Specifically, in December 2017, Ripple Labs announced it had put 55 billion of its XRP into a programmatic “cryptographically-secured escrow account,” through a smart contract. The smart contract sets a fixed amount of XRP available for use by Ripple Labs—whether to sell or otherwise to use for transactions—that will permit a maximum of 1 billion XRP to be released on the first day of each month.⁵⁶ Unused XRP from each month’s distribution is returned to the escrow.

Ripple Labs does not hold itself out as generally available to sell XRP to the public,⁵⁷ but Ripple Labs does, from time to time, sell blocks of XRP to institutional buyers through an affiliate, XRP II, LLC,⁵⁸ a FinCEN-registered money service business and New York-licensed virtual currency business.⁵⁹ XRP is primarily obtained through purchases on the secondary market, including through several trading platforms.⁶⁰ Ripple Labs does not sell XRP directly from its website, although it does link to trading platforms that make XRP available. Ripple Labs also sells XRP anonymously in the market through third-party trading platforms. These sales are programmatic so as to not exceed a small fraction of market volume, for example 0.2% in the third quarter of 2017.⁶¹

In some circumstances, when Ripple Labs sells a large amount of XRP to a purchaser, Ripple Labs has required a lock-up agreement with the purchaser that limits the amount the purchaser can sell to a percentage of daily trading volume of XRP.⁶²

⁵⁵ *Market Performance*, RIPLE.COM (last accessed Apr. 9, 2018), <https://ripple.com/xrp/market-performance/>.

⁵⁶ *Ripple Escrows 55 Billion XRP for Supply Predictability*, RIPLE.COM (Dec. 7, 2017), <https://ripple.com/insights/ripple-escrows-55-billion-xrp-for-supply-predictability/>; see also Danny Schwartz, *An Explanation of Ripple’s XRP Escrow*, RIPLE.COM (Dec. 15, 2017), <https://ripple.com/dev-blog/explanation-ripples-xrp-escrow/>.

⁵⁷ Ripple Labs’ website directs persons seeking information on purchasing XRP to various digital asset trading platforms. *How to Buy XRP*, RIPLE.COM (last accessed Apr. 9, 2018), <https://ripple.com/xrp/buy-xrp/>.

⁵⁸ Miguel Vas, *Q1 2017 XRP Market Report*, RIPLE.COM (Apr. 18, 2018), <https://ripple.com/insights/q1-2017-xrp-markets-report/>.

⁵⁹ NY Dep’t of Fin. Services, *Press Release: DFS Grants Virtual Currency License to XRP II, LLC, an Affiliate of Ripple* (Jun. 13, 2016), <https://www.dfs.ny.gov/about/press/pr1606131.htm>.

⁶⁰ *How to buy XRP*, RIPLE.COM (last accessed Apr. 1, 2018), <https://ripple.com/xrp/buy-xrp/> (listing exchanges of XRP).

⁶¹ Miguel Vas, *Q3 2017 XRP Markets Report*, RIPLE.COM (Oct. 19, 2017), <https://ripple.com/insights/q3-2017-xrp-markets-report/>.

⁶² See Miguel Vas, *Q4 2017 XRP Markets Report*, RIPLE.COM (Jan. 24, 2018), available at <https://ripple.com/insights/q4-2017-xrp-markets-report/> (“[P]urchases [by institutional buyers] typically include restrictions that mitigate the risk of market instability due to potential subsequent large sales”).

2. ***Please explain what analysis you have given as to whether the growth or value of Ether and Ripple will be dependent on or impacted by the efforts of the Ethereum Foundation and Ripple Labs, or the efforts of others. In particular, note in your analysis what you expect will be the drivers of the value of one cryptocurrency relative to the alternatives. Would you expect that rates of adoption would be a driver and that the efforts of third parties would impact such rates? To the extent technical or other issues impact the adoption of Ether or Ripple, would you expect that the Ethereum Foundation and Ripple Labs would attempt to address such issues in view of their public announcements regarding the digital assets in which they have an interest? If you do not expect that the growth or value of these digital assets will be dependent on or impacted by the Ethereum Foundation and Ripple Labs, or the efforts of others, please explain how and why these digital assets will appreciate in value, irrespective of those efforts.***

As an initial matter, the Manager notes that, as disclosed in the Registration Statement, the Fund seeks to capture the performance of the digital asset market by investing in a market capitalization-weighted portfolio of digital assets. It does not select specific digital assets based on its view of the likely growth in value of particular digital assets relative to others. Accordingly, while the Manager has addressed the staff's questions in the following section, the Manager will not take into consideration the growth drivers of particular digital assets when adding digital assets to or removing digital assets from the Fund. Instead, the Manager views the inquiry into growth drivers as part of the larger *Howey* analysis that it will undertake on a digital asset-by-digital asset basis in order to determine whether a digital asset is a security for federal securities law purposes, and where future growth appears to depend on an identifiable group of individuals (such as the Ethereum Foundation or Ripple Labs), the digital asset in question would be more likely to be a security.

A. Expected Value-Drivers for ETH

Like other commodities, ETH is a scarce resource and derives its value from the interplay of supply and demand; unlike most other commodities, the supply of ETH expands programmatically at a predictable and stable rate. On the demand side, because ETH must be expended in order to use the Ethereum Network, including its smart-contract functionality and computing power, demand for ETH is tied to demand for use of the network. As a result, the Manager believes that the most significant driver of the value of ETH relative to other digital assets is the usefulness of the Ethereum Network as a platform for smart contracts and decentralized applications, as well as expectations around the value of these features in the future. The Manager therefore believes that the future value of ETH depends on growth in demand for these features, as well as the usefulness of ETH for smart contracts and decentralized applications relative to other digital assets that may implement these features.

The demand for these specialized uses of the Ethereum Network can be broken down into three main drivers:

1. Driver 1: The Market for Decentralized Applications and Smart Contracts

The demand for ETH for use in decentralized applications and smart contracts, of course, depends on the broader market demand for these new technologies. To date, most organizations using these technologies are in very early stages of development, and although there is significant interest in the space, it is not yet clear that the marketplace will find that these

technologies provide any long-term advantage for delivering products and services. The Manager does not expect that the activities of the Ethereum Foundation would have a significant impact on this driver for demand, which is dependent on the ability of the broader marketplace to find a useful purpose for decentralized applications and smart contracts, and on consumer adoption of the products and services offered using these technologies. Because the Ethereum Foundation's activities appear to focus primarily on the Ethereum Network's technology, the Manager does not expect it to significantly impact user demand for decentralized applications or smart contracts.

2. Driver 2: Competition from Other Digital Asset Networks

In the time since the launch of the Ethereum Network, other digital asset networks, such as the Tezos, Rootstock, and Qtum networks, have launched that similarly provide a platform for smart contracts and decentralized applications. To the extent that actors in the market for these technologies find other digital asset networks more useful than the Ethereum Network, it should be expected that demand for ETH would decline relative to where it would otherwise be. It would therefore be in the best interest of any holder of ETH to promote the use of the Ethereum Network over other networks.

The Ethereum Network currently enjoys a substantial first-mover advantage and existing network effect in this regard, and, to date, has been the overwhelming favorite network for launching decentralized applications.⁶³ Given this favored position, the Manager is not aware of any concerted efforts to promote ETH over its competitors by the Ethereum Foundation, or any other large holder of ETH. While it may be in the Ethereum Foundation's interest to engage in such promotion in the future, such promotion may be inconsistent with its stated mission "to bring decentralized protocols and tools to the world,"⁶⁴ and the Manager does not believe that the holders of ETH would expect or rely on the Ethereum Foundation to engage in such promotion as such promotion would depart from the Ethereum Foundation's past focus on technical innovation and its vision for "a more globally accessible, more free and more trustworthy Internet."⁶⁵

The Manager acknowledges that to the extent the Ethereum Foundation's efforts cause the Ethereum Network to offer improved technology relative to other networks, it could maintain demand for ETH relative to tokens of other platforms. These technical improvements as a value driver are discussed in greater detail below.

3. Driver 3: Technical Improvements

The demand for ETH may be impacted to the extent that the technology underlying the Ethereum Network is improved, making the network more useful for a broader set of functions or users. For example, one of the most significant barriers to widespread adoption of the Ethereum Network is the so-called "scaling problem." The crux of the problem is that, as currently designed, the Ethereum Network's maximum throughput is approximately 15-20 transactions per second. It is

⁶³ In Q1 2018, it was reported that over 90% of the market value of decentralized application "tokens" was captured by applications running on the Ethereum network, see AminCad, *Market share of Ethereum-based tokens grows to 91%*, MEDIUM (Jan. 12, 2018), <https://medium.com/@amincad/market-share-of-ethereum-based-tokens-grows-to-91-fdefadfd9f6e>.

⁶⁴ *About the Ethereum Foundation*, *supra* note 16.

⁶⁵ *Id.*

generally agreed that widespread adoption will require the network to handle thousands or tens of thousands of transactions per second. Ethereum developers, including Mr. Buterin, have proposed a variety of solutions to the scaling problem; however a significant amount of research and development is still required before a solution could feasibly be implemented.⁶⁶

Of the drivers of ETH adoption that the Manager has identified, this is the driver where the Ethereum Foundation might have an impact. Scaling solutions, for example, are a key focus of the Ethereum Foundation's research arm, and the Ethereum Foundation has recently begun offering grants to developers working on scaling solutions.⁶⁷

While it is possible that some technological improvements, such as a scaling solution, may be driven or substantially aided by the Ethereum Foundation, the Manager does not believe that the Ethereum Foundation is strictly necessary nor relied upon by ETH holders for such technological improvements. Given the enormous pool of developers engaged in the Ethereum community, and the large number of businesses and projects unaffiliated with the Ethereum Foundation that have a financial incentive to see the Ethereum Network succeed, the Manager believes that even without the Ethereum Foundation's efforts, other actors will continue to work toward technological improvements.

Further, the Manager does not believe that the Ethereum Foundation wields sufficient centralized authority such that any ETH holder could reasonably rely on its efforts. As described above, the decentralized governance structure of the Ethereum Network does not confer on the Ethereum Foundation any super-user status, and its proposal, like anyone else's, would be debated and may or may not be adopted by users.

B. Expected Value-Drivers for XRP

Like ETH, XRP is coded to be a scarce commodity, with a known total supply already in existence, although the supply available for sale at any one time is subject to change. Demand for XRP comes from its use as a mechanism to transfer value through XRP itself, as a bridge between a pair of currencies, or from users that must expend XRP to effect transactions on the XRP Ledger. The Manager believes that the value of XRP will depend on the interaction of these demand and supply factors, each of which is discussed below.

The Manager acknowledges that Ripple Labs' efforts to maintain and improve the XRP Ledger, and encourage adoption of XRP, may impact the value of XRP. This however does not mean that XRP is a security. As noted in our December 28, 2017 letter, XRP is designed to have primarily consumptive uses, rather than serve as an investment vehicle. Similar constructs exist in other contexts in which consumptive assets are not thereby transformed into securities. For example, the secondary-market value of sporting-event tickets could certainly be impacted by the host team's efforts to promote the event, improve the venue, expand its roster of players, or limit the number of tickets in circulation. However, even though these efforts of the host team would impact the value of the tickets, the tickets would not be securities because they remain a

⁶⁶ For a detailed discussion of the scaling problem and proposed solutions see Josh Stark, *Making Sense of Ethereum's Layer 2 Scaling Solutions: State Channels, Plasma, and Truebit*, L4 MEDIA (Feb. 12, 2018), <https://medium.com/l4-media/making-sense-of-ethereums-layer-2-scaling-solutions-state-channels-plasma-and-truebit-22cb40dcc2f4>.

⁶⁷ See *Ethereum scalability research and development subsidy programs*, *supra* note 20.

consumptive good—even if some parties purchase them for speculative resale purposes.⁶⁸ Further, unlike the digital assets at issue in the DAO⁶⁹ and Munchee⁷⁰ offerings, to the Manager's knowledge, Ripple Labs has never promoted XRP as an investment opportunity to give purchasers an expectation of profit.

1. Driver 1: Demand for XRP as a Currency or Bridge Currency

The demand for XRP as a currency will depend upon several factors. First, the general increase in the use and acceptance of digital assets may support increased use of XRP as a currency. Further, increased interest among financial institutions to use Ripple Labs' products and services that incorporate XRP could increase demand for XRP as a currency. The relative usability and technology underlying the XRP Ledger may also impact the value of XRP relative to other digital assets offering similar functionality.

The Manager believes that XRP may have an advantage vis-à-vis other digital assets focused on facilitating transfer of value because it offers faster transaction times and reduced transaction costs, a fact that Ripple Labs has sought to publicize.⁷¹ These characteristics might make XRP particularly successful as a bridge currency for cross-border transactions, to facilitate currency transactions where no direct exchange is available; for example, between lightly traded currency pairs, or between parties who do not have intervening institutions between them that are willing to extend credit to one another. For example, XRP is currently being used as a bridge currency by Cuallix, a Mexican money-transfer company.⁷² MoneyGram also announced that it would test XRP for use in settling payments, which caused at least a short term 4% increase in the value of XRP.⁷³ Ripple Labs has played a coordinating and support role in testing the application of XRP as a bridge currency with a consortium of financial institutions.⁷⁴ In addition, because Ripple Labs sells software and associated support and professional services that involve the use of the XRP Ledger, its own business development efforts may indirectly encourage adoption of the network and use of XRP, which could impact the value of XRP. However, Ripple Labs would only undertake these efforts to promote software that uses XRP for so long as and to the extent it made business sense for it to do so. As noted above, one of Ripple Labs' primary product offerings, xCurrent, does not require the use of XRP. To the extent business realities lead Ripple Labs to believe that xCurrent was a more viable business than xRapid (which does require XRP), its own business reasons for promoting XRP may be reduced as well.

⁶⁸ See, e.g., SEC No-Action Letter, The Ticket Reserve, Inc., 2003 WL 22195093, at *4 (Sept. 11, 2003).

⁶⁹ See *Report of Investigation Pursuant to Section 21(a) of the Securities Exchange Act of 1934: The DAO*, *supra* note 11.

⁷⁰ See *In re Munchee, Inc.*, Securities Act Rel. No. 10445 (Dec. 11, 2017).

⁷¹ Jonathan Vanian, *Ripple CEO Brad Garlinghouse Talks Bitcoin, Banks, and Payments*, FORTUNE.COM (Feb. 14, 2018), <http://fortune.com/2018/02/13/ripple-bitcoin-banks-brad-garlinghouse/>.

⁷² Kelly Johnson, *RippleNet Grows to More Than 100 Financial Institutions*, RIPLE.COM (Oct. 10, 2017), <https://ripple.com/insights/rippletnet-grows-to-over-100-financial-institutions/>.

⁷³ Matthew Leising & Jennifer Surane, *MoneyGram Jumps After Saying It'll Test Ripple's Digital Coins*, BLOOMBERG.COM (Jan. 11, 2018), <https://www.bloomberg.com/news/articles/2018-01-11/ripple-says-moneygram-will-test-its-digital-asset-for-payments>.

⁷⁴ Gertrude Chavez-Dreyfus, *U.S. start-up R3, banks test Ripple's cross-border payments technology*, REUTERS.COM (Oct. 20, 2016), <https://www.reuters.com/article/us-banks-ripple-blockchain/u-s-start-up-r3-banks-test-ripples-cross-border-payments-technology-idUSKCN12K20H>.

In addition to promoting its use, Ripple Labs developers, with user consensus, have continued to propose and adopt improvements to the XRP Ledger technology.⁷⁵ Ripple Labs has also undertaken efforts to make it easier to securely hold XRP, such as through working with BitGo to create a “multi-signature security, advanced treasury management and additional enterprise functionality for XRP.”⁷⁶ Although routine improvements are a necessary component of any software-based technology, XRP does not suffer from a scaling problem, or any other significant technical barrier to widespread adoption, as is the case for ETH and BTC. As such, the Manager does not believe that the efforts of Ripple-employed engineers in improving XRP are likely to be a significant factor in the adoption of XRP or changes in its value.

Importantly, Ripple Labs is not alone in promoting products and services that may cause greater user interest in and adoption of XRP. The Manager understands that in addition to Ripple Labs, several organizations, including the consulting companies [REDACTED], have developed practices to support the adoption of RippleNet use cases by clients, including use cases involving XRP. Therefore while holders of XRP may at some level assume Ripple Labs will engage in activity that will impact the value of XRP, Ripple Labs is by no means the sole source of these efforts. This is in contrast to holders of an actual security like common stock or a debt instrument, the value of whose investment depends almost exclusively on the managerial talent of a single incumbent executive team. Ripple Labs is but one of many independent actors that can add value to XRP.

It is also worth noting that XRP will continue to exist and fulfill its uses as a currency and spam-prevention device regardless of the efforts of Ripple Labs. Ripple Labs does not own the XRP Ledger. If Ripple Labs were to cease existence, the network technology could continue to function as a means of value transfer. How the exit of Ripple Labs would affect the market value of XRP would depend upon the facts and circumstances surrounding its exit. The Manager suspects that an abrupt exit by Ripple Labs could negatively affect XRP's market price if it leads to a loss of confidence among users, or to the expectation that the adoption of the XRP Ledger and XRP, and therefore the demand for XRP, would be significantly reduced. But if Ripple Labs instead were attempting to make changes to the protocol with which the user community does not agree, such as changing the nature of the software to cause Ripple Labs to be a necessary intermediary, a potential exit by Ripple Labs may not be a negative event for the market value of XRP, and may even increase the market value of XRP.

2. Driver 2: Demand for XRP as a Component of RippleNet Products

The Manager expects that increased use of RippleNet products will increase demand for XRP, and thus would likely increase the value of XRP. However, the correlation between the demand for XRP and the success of Ripple Labs in promoting its RippleNet products is not necessarily straightforward. Ripple Lab's successful sale of its xRapid product may drive increased demand for XRP as that software product leverages XRP for cross-border transactions. However, because this product involves the purchase and immediate resale of XRP, it is not clear if use of the product itself will have any significant price impact unless the volume of asset transfers using XRP is high enough to be meaningfully constrained by the available supply. Faster transaction

⁷⁵ See *XRP Ledger Introduction*, XRP DEVELOPER CENTER, <https://ripple.com/build/xrp-ledger-introduction> (last accessed Apr. 10, 2018) (“Ripple employs a team of world-class engineers dedicated full-time to maintaining and improving the XRP Ledger software”).

⁷⁶ Miguel Vas, *BitGo Builds Enterprise Wallet for XRP*, RIPLE.COM (Feb. 15, 2017), <https://ripple.com/insights/bitgo-builds-enterprise-wallet-xrp/>.

speeds put less pressure on available supply, and so the near instantaneousness of XRP transactions lessens the correlation between use of xRapid and XRP prices.⁷⁷

As noted above, the XRP protocol requires users to destroy, or “burn,” a small amount of XRP to open new accounts and dispatch transactions. This process is in place as an anti-spam measure that acts to safeguard against the XRP Ledger being overwhelmed by an attack conducted by a participant effecting a very large number of transactions at once (known as a distributed denial-of-service or DDoS attack).⁷⁸ The amount of XRP burned is generally very low (e.g., \$0.001), but has been sufficient to prevent an attempt to overwhelm the network. Although in theory widespread adoption of xRapid could lead to increased demand for XRP through this mechanism, the Manager believes that due to the *de minimis* amounts of XRP involved this mechanism is unlikely to lead to a substantial price impact. In addition, although xCurrent does not require the use of XRP, temporary price increases have been observed following announcements of new xCurrent clients. These price increases may be driven by speculation that users of xCurrent are more likely to adopt xRapid—Ripple Labs’ XRP-driven product—in the future.

Increased adoption and use of the XRP Ledger protocol (and thus increased demand for XRP) may also come from third parties unaffiliated with Ripple Labs who identify the speed and low transaction costs of the XRP Ledger for other uses. For example, in 2015, Standard Chartered, the Development Bank of Singapore, and Infocomm Development Authority of Singapore built a system for tracking trade finance invoices using the XRP Ledger.⁷⁹ It was also recently reported that some firms, without Ripple Labs’ knowledge or consent (which due to the open-source nature of the XRP Ledger is not requested or required) have used the XRP Ledger to launch so called “initial coin offerings.”⁸⁰ While Ripple Labs is reported to have said that it is not “interested in promoting or supporting ICOs on the [XRP] ledger,”⁸¹ given its open and decentralized nature, it cannot control its use by third parties. The use of the XRP Ledger for assets other than XRP may cause other actors to explore whether to use the network for other assets, much in the way the Ethereum Network is commonly used to track ownership of assets other than ETH. Increased adoption of the XRP Ledger, even for uses that have not been sponsored or approved by Ripple Labs, will require the “burning” of XRP and could increase its demand, impacting XRP value without Ripple Labs’ involvement.

3. Driver 3: Cryptocurrency Market Adoption of XRP

Historically, a digital asset being made available for trading on secondary market venues, particularly more well-known trading venues, has signaled market acceptance of the digital asset

⁷⁷ For further discussion of why the price of a digital asset whose functionality involves purchase and immediate resale may not increase even in spite of overwhelming success, see Kyle Samani, *The Blockchain Token Velocity Problem*, COINDESK.COM (Dec. 8, 2017), <https://www.coindesk.com/blockchain-token-velocity-problem/>.

⁷⁸ *Developer Center: Transaction Cost*, RIPLE.COM (last accessed Apr. 10, 2018), <https://ripple.com/build/transaction-cost/#current-transaction-cost>.

⁷⁹ See Sofia Lotto Persio, *Banks develop blockchain platform for trade finance*, Global Trade Review (Dec. 17, 2015), <https://www.gtreview.com/news/asia/banks-develop-blockchain-based-platform-for-trade-finance/>.

⁸⁰ Brady Dale, *An XRP ICO? It's On Whether Ripple Likes It or Not*, COINDESK.COM (Apr. 5, 2018), <https://www.coindesk.com/xrp-ico-happening-whether-ripple-likes-not/>.

⁸¹ *Id.*

and triggered an increase in its value.⁸² The Manager believes that XRP would similarly increase in value if it were to be available for purchase or trading on additional digital asset trading venues, particularly U.S. platforms. This increase in value may be due to the credibility that availability on such platforms afford the digital asset, or the additional value that inherently accrues to an asset when it becomes more liquid.

Because XRP liquidity is a necessary component of Ripple Labs' cross-border payment software solutions, the Manager understands that Ripple Labs supports efforts to make XRP more liquid and more widely available for purchase, including through some of these well-known digital asset trading platforms.⁸³ The Manager also understands that Ripple Labs supports the secondary market for XRP by engaging with market-making firms, including by providing technical support and grants or loans of XRP to improve liquidity. For example, in October 2017, Ripple Labs announced the "RippleNet Accelerator Program," described by Ripple Labs as a program that "stimulates XRP adoption in market making by rebating liquidity providers for quoting against XRP in the immediate term, thereby supporting spread reduction over time against a new asset."⁸⁴ Ripple Labs explained that the program was intended to grow the "network effects" and "accelerate adoption and usage of Ripple solutions."⁸⁵

Although Ripple Labs' efforts in this regard, where successful, may have the effect of increasing the value of XRP, they serve other important business purposes for Ripple Labs, unrelated to the value of XRP. Liquidity of XRP is important for Ripple Labs, for example, for the proper functioning of xRapid. A liquid market for transactions between U.S. dollars and XRP, and between XRP and Mexican pesos, is required in order to successfully roll out a U.S.-Mexico payment-transfer functionality. To this end, Ripple Labs has an interest in advocating that XRP be listed and traded on major digital-asset trading venues in countries on both sides of the transaction, in order to permit users to access XRP, move it to the destination, and pay it out in the requisite currency.⁸⁶ In addition, as noted above, because the availability of XRP is necessary for the use of certain products of the RippleNet, the liquidity of XRP is a sensible business concern for Ripple Labs.

Because Ripple Labs would only undertake these efforts for so long as and to the extent they were necessary for its own business, the Manager does not believe that they would be long-term drivers of the value of XRP. As noted above, one of Ripple Labs' primary product offerings, xCurrent, does not require the use of XRP. To the extent business realities led Ripple Labs to

⁸² See, e.g., Sujha Sundararajan, *Coinbase: Massive Buy Demand Caused Bitcoin Cash Launch Hiccups*, COINDESK.COM (last accessed Apr. 10, 2018), <https://www.coindesk.com/coinbase-massive-buy-demand-caused-bitcoin-cash-launch-hiccups/>.

⁸³ Annie Massa et al., *Ripple Has Tried to Buy Its Way Onto Major Exchanges for Cryptocurrency*, BLOOMBERG.COM (Apr. 4, 2018), <https://www.bloomberg.com/news/articles/2018-04-04/ripple-is-said-to-struggle-to-buy-u-s-listing-for-popular-coin>.

⁸⁴ *The Cost-Cutting Case for Banks*, RIPLE.COM (Feb. 2016), https://ripple.com/files/xrp_cost_model_paper.pdf; see also Sarah Marquer, *Ripple Rolls Out \$300M RippleNet Accelerator Program to Grow Volume and XRP Utility*, RIPLE.COM (Oct. 13, 2017), <https://ripple.com/insights/ripple-rolls-300m-rippletnet-accelerator-program-grow-volume-xrp-utility/>.

⁸⁵ *Id.*

⁸⁶ Annie Massa et al., *Ripple Has Tried to Buy Its Way Onto Major Exchanges for Cryptocurrency*, BLOOMBERG.COM (Apr. 4, 2018), <https://www.bloomberg.com/news/articles/2018-04-04/ripple-is-said-to-struggle-to-buy-u-s-listing-for-popular-coin>.

believe that xCurrent was a more viable business than xRapid (which does require XRP), its own business reasons for promoting XRP liquidity may be reduced as well.

4. Driver 4: Supply of XRP

The Manager believes that the value of XRP could also be significantly impacted by the supply of XRP available in the market. The most significant driver of supply is the largest holder of XRP, Ripple Labs.

Although it is possible that Ripple Labs could change course in the future, at present Ripple Labs has made substantial efforts to limit the supply of XRP available to it for sale. As described above, Ripple Labs has put the bulk of its XRP in a programmatic escrow, through a binding smart contract, to limit the XRP supply available in the market. Ripple Labs has also taken steps to limit large sales or resales by other parties. For example, the three co-creators of XRP—Chris Larsen, Jed McCaleb and Arthur Britto—have all restricted sales of the XRP they own. Mr. McCaleb, for example, committed in 2013 to a seven-year lock-up period that limits his yearly sales of XRP and, after some disagreement and litigation regarding his sale of XRP, Mr. McCaleb has committed to yet another lock-up arrangement that restricts his sale of XRP.⁸⁷ Ripple Labs has also taken steps to limit large resales of XRP by institutional buyers when it enters into larger block transactions. In addition, with regard to the portion of XRP that is available to it, as noted above Ripple Labs has made efforts to limit the extent of its sales to a small portion of market volume, to avoid its sales impacting the price of XRP.

As a result of these arrangements, the Manager does not believe that Ripple Labs will cause the supply of XRP it owns or sells in the market to increase significantly for the time being, and so does not believe that the market supply of XRP should significantly drive its value. The Manager acknowledges, however, that given Ripple Labs' ownership level, it could reverse course on these voluntary steps in the future, increasing the available supply, putting downward pressure on the value of XRP.

3. ***We note your response regarding your process and framework for making a determination if a new digital asset is a security. Please note that we would independently evaluate whether any new digital asset is a security. Please tell us how you intend to update your registration statement if and when you elect to purchase a new digital asset.***

The Manager intends to amend the prospectus to include disclosure regarding new digital assets added to the portfolio as appropriate prior to that new digital asset becoming a material portion of the portfolio, or when the attributes of a new digital asset differ from digital assets otherwise described in the prospectus in a manner that would be material to an investment decision.

* * *

⁸⁷ *Settlement of Jed's XRP*, RIPLE.COM (Aug. 14, 2014), <https://forum.ripple.com/viewtopic.php?f=1&t=7641&f=1&t=7641>; *Final Settlement with Jed*, RIPLE.COM (Feb. 11, 2016), available at <https://forum.ripple.com/viewtopic.php?f=1&t=15885>.

We appreciate the staff's review of the Registration Statement and look forward to any further comments or questions you may have. You may contact me at [REDACTED]

Very truly yours,

[REDACTED]

cc: [REDACTED]
Head of Legal

[REDACTED]
